

$$\begin{array}{r} 1 \\ 2 \\ 3 \\ \hline 27 \end{array}$$

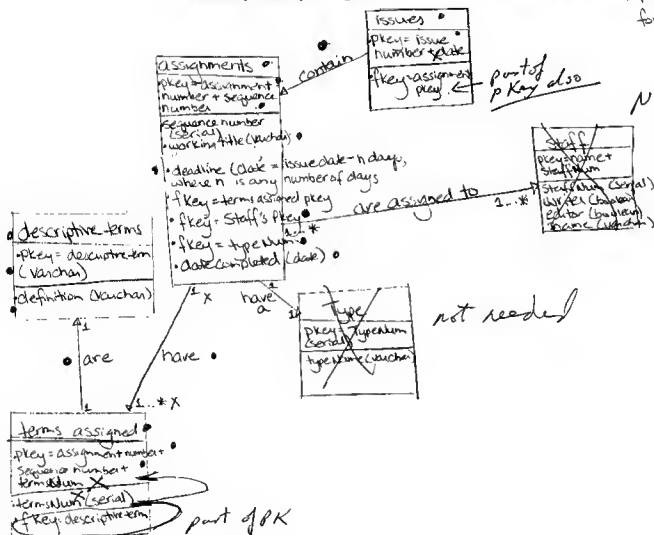
1. Entity Relationship diagram (worth 30 marks)

19/30

Draw a detailed entity-relationship diagram of the proposed database that includes:

- The entities that need to be represented by tables in the database
- Each entity should be represented by a box that has three sections that contain:
 - A suitable name for the entity
 - The attributes that will be used as the primary key of the entity
 - The other attributes that need to be included in the entity
 (I know that I said that so much information in a diagram can be hard to read, but it's easier for you to answer the question this way)
- The relationships that need to be represented in the database
 - Each relationship should be named
 - Each end of a relationship should include multiplicity information.
- NOTE: there are some marks that will be given to those people who do not include any unnecessary items in your diagram.

* primary key = pkey
foreign key = fkey



2. SQL data definition (worth 25 marks)

You are to provide a set of SQL data definitions (as required in the subsections of this question) relating to the main assignment table only. Do not create any unnecessary definitions or parts of definitions.

- It is expected that you can determine which table I mean from the case study and your e-r diagram. The main assignment table is the first table into which some information about a new assignment is entered.
- Be sure to use suitable naming of all components as discussed in class.

- a. Provide the SQL required to define the domains you will use in your table definition

CREATE DOMAIN

Not SQL
But PostgreSQL
you will get
a mark

- b. Provide the SQL required to define the main assignments table

• CREATE TABLE assignments (a_sequenceNumber SERIAL,
a_workingTitle VARCHAR(50), a_deadline DATE, a_termsAssigned INT,
a_staff VARCHAR(75), a_typeNum INT, a_dateCompleted DATE,
FOREIGN KEY a_termsAssigned REFERENCES termsAssigned (key), FOREIGN KEY
a_staff REFERENCES staff (key), FOREIGN KEY a_typeNum REFERENCES
typeNum (key));

- c. Provide the SQL required to define a view that writers can use to make changes

CREATE VIEW writer_view (assignments.a_workingTitle,
assignments.a_dateCompleted, assignments.a_deadline, assignments.a_termsAssigned,
assignments.a_staff) RESTRICTION read only;

A title, date
Completed,
view only deadline,
date terms

- d. Provide the SQL required for a writer known to the system as "max" to make changes

3. SQL Data Manipulation (worth 20 marks)

In question 2 you did not define all of the data definitions you need to answer the following questions. You should use those definitions you have that apply from question 2. However, by using good attribute and view names that relate to the names you used in question 1, it should be obvious what you mean.

- 2 e. Provide the SQL required to create a listing of all assignments from your assignments table that have not been completed by a writer named "Slo Mo" sorted based on their deadline.

```
SELECT * FROM assignment WHERE (SELECT s-staffNum  
FROM staff WHERE s-name = 'Slo Mo');
```

- f. Provide the SQL required for the editor to change the deadline to issue 62 and the writer to "Fast Er" on the 3rd assignment originally proposed for issue 63.

- g. Provide the SQL required to create a listing of the title and the issue in which it was published of all published assignments that are referred to by the descriptive term "database".